SHARP FACTS

Condoms and Their Use in Preventing HIV and STD

Introduction

With nearly 1 million Americans infected with HIV, most of them through sexual transmission, and an estimated 15 million cases of other sexually transmitted diseases (STDs) occurring each year in the United States, effective strategies for preventing these diseases are critical.

Refraining from having sexual intercourse with an infected partner is the best way to prevent transmission of HIV and other STDs. But for those who have sexual intercourse, latex condoms are highly effective when used consistently and correctly. Condoms can be expected to provide different levels of risk reduction for different STDs. There is no one definitive study about condom effectiveness for all STDs. Several studies have demonstrated that condoms can reduce the risk of acquiring chlamydia, gonorrhea, trichomoniasis, syphilis, chancroid and herpes. However, because not all studies have demonstrated protective effects, the body of evidence is considered inconclusive. In addition, definitive data are lacking regarding the degree of risk reduction that latex condoms provide in preventing transmission of genital Humanpapilloma Virus. It is important to note that the lack of data about the level of condom effectiveness indicates that more research is needed – not that latex condoms don't work.

The correct and consistent use of latex condoms during sexual intercourse - vaginal, anal, or oral - can greatly reduce a person's risk of acquiring or transmitting HIV infection. In fact, recent studies provide compelling evidence that latex condoms are highly effective in protecting against HIV infection when used for every act of intercourse.

This protection is most evident from studies of couples in which one member is infected with HIV and the other is not, i.e., "discordant couples." In a 2- year study of discordant couples in Europe, among the 124 couples who reported consistent use of latex condoms, none of the uninfected partners became infected. In contrast, among the 121 couples who used condoms inconsistently, 12 (10 percent) of the uninfected partners became infected.

Condoms must be used consistently and correctly to provide maximum protection. Consistent use means using a condom with each act of intercourse. Correct condom use includes all of the following steps:

- Use a new condom for each act of vaginal, anal, or oral intercourse.
- Put on the condom as soon as erection occurs and before any vaginal, anal, or oral contact with the penis.
- Hold the tip of the condom and unroll it onto the erect penis, leaving space at the tip of the condom, yet ensuring that no air is trapped in the condom's tip.
- Adequate lubrication is important to prevent condom breakage, but use only water-based lubricants, such as glycerine or lubricating jellies (which can be purchased at any pharmacy). Oil-based lubricants, such as petroleum jelly, cold cream, hand lotion, or baby oil, can weaken the condom.
- Withdraw from the partner immediately after ejaculation, holding the condom firmly to the base of the penis to keep it from slipping off.

Myths About Condoms

Misinformation and misunderstanding persist about the effectiveness of condoms. The Centers for Disease Control and Prevention (CDC) provides the following updated information to address some common myths about condoms. This information is based on findings from recent studies.

Myth #1: Condoms frequently break. Some have questioned the quality of latex condoms. Condoms are classified as medical devices and are regulated by the Food and Drug Administration. Every latex condom manufactured in the United States is tested for defects before it is packaged. During the manufacturing process, condoms are double-dipped in latex and undergo stringent quality control procedures. Several studies clearly show that condom breakage rates in this country are less than 2 percent. Most of the breakage is likely due to incorrect usage rather than poor condom quality. Using oil-based lubricants can weaken latex, causing the condom to break. In addition, condoms can be weakened by exposure to heat or sunlight, or by age, or they can be torn by teeth or fingernails.

Myth #2: HIV can pass through condoms. A commonly held misperception is that latex condoms contain "holes" that allow passage of HIV. Laboratory studies show that intact latex condoms provide a highly effective barrier to sperm and micro-organisms, including HIV and the much smaller hepatitis B virus. Natural membrane or animal skin condoms, are not recommended for STD prevention. They contain natural pores in the membrane through which HIV and other STDs may pass.

Preventing HIV Infection and Other STDs: Recommended Prevention Strategies

Abstaining from sexual intercourse is the most effective HIV prevention strategy. For individuals who are sexually active, the following are highly effective:

- Engaging in sexual activities that do not involve vaginal, anal, or oral intercourse
- Having intercourse only with one uninfected partner
- Using latex condoms correctly from start to finish with each act of intercourse

Condoms for Women. The ***female condom*** or vaginal pouch has recently become available in the United States. A small study of this condom as a contraceptive indicates a failure rate of 21-26 percent in 1 year among typical users; for those who use the female condom correctly and consistently, the rate was approximately 5 percent. Although laboratory studies indicate that the device serves as a mechanical barrier to viruses, further clinical research is necessary to determine its effectiveness in preventing transmission of HIV. If a male condom cannot be used, consider using a female condom.

Plastic Condoms. A polyurethane male condom was approved by FDA in 1991 and is now available in the United States. It is made of the same type of plastic as the female condom. The lab studies show that the new polyurethane condoms have the same barrier qualities as latex. Lab testing has shown that particles as small as sperm and HIV cannot pass through this polyurethane material. A study of the effectiveness of this polyurethane condom for prevention of pregnancy and STDs is underway. The new polyurethane condoms offer an alternative for condom users who are allergic to latex. Also, polyurethane condoms can be made thinner than latex, have no odor, and are safe for use with oil-based lubricants.

Spermicides. In one study, of women at very high risk of exposure to HIV infection, researchers found that the women who used Nonoxynol-9 (N-9) gel had become infected with HIV at about a 50% higher rate than women who used a placebo gel. Further, the more frequently women used only N-9 gel (without a condom) to protect themselves, the higher their risk of becoming infected. Simply stated, **N-9 did not protect against HIV infection and may have caused more transmission**. Women who used N-9 also had more vaginal lesions, which might have facilitated HIV transmission. While N-9 will not offer any additional protection against HIV, a condom lubricated with N-9 is clearly better than using no condom at all. The protection provided by the condom against HIV far outweighs the potential risk of N-9. If given the choice, **condoms without N-9 may be a better option for HIV prevention**.

Where can I get more information?

Your medical care provider should be consulted if you think you may have been exposed to any sexually transmitted disease. CDC provides information through their National STD Hotline at (800) 227-8922 and their National AIDS Hotline at (800) 342-AIDS (2437). For further information regarding your sexual health, visit the SHARP Home Page at http://www-nehc.med.navy.mil/hp/sharp.

This information adapted by the Sexual Health and Responsibility Program (SHARP), Directorate of Health Promotion and Population Health, Navy Environmental Health Center in Norfolk Virginia from material developed by the Centers for Disease Control and Prevention, National Center for HIV, STD & TB Prevention, Division of HIV/AIDS Prevention